

ABSTRACT OF THE DISCLOSURE

A vibratory mechanism which is composed of vibratory shafts, which are stored within a roll and are arranged symmetrically across a rotation axis of the roll, a fixed eccentric weight fixed to respective vibratory shafts, a  
5 rotatable eccentric weight rotatably attached to respective vibratory shafts, a rotation controller controlling a range of movement of the rotatable eccentric weight, and an eccentric moment controller which changes an eccentric moment around the vibratory shaft depending on the rotation direction of the  
10 vibratory shafts, whereby the vibration state of the roll is switchable between standard vibration and horizontal vibration.